

## Expected Schoolwide Learning Results

### **E – Effective Communicators**

Students are able to communicate effectively in both oral and written language. *They will...*

- Read with comprehension and literary analysis skills
- Write with clarity, creativity and power
- Speak with poise and command of language

### **A – Academically Successful**

Students will possess learning skills which enable them to achieve academic success. *They will...*

- Strive to reach their God-given potential
- Develop research and organizational skills
- View learning as a life-long process

### **G – Greater Appreciation for the Arts and Cultural Diversity**

Students are healthy and well-rounded individuals. *They will...*

- Develop an understanding and appreciation of diverse cultures and opinions
- Develop an understanding and appreciation of the arts
- Develop positive habits of good nutrition and physical fitness

### **L – Lovers of God**

Students will have knowledge of Christ, which leads to personal salvation and a discerning lifestyle that *honors God*. *They will...*

- Develop an understanding of the Bible and Christian world-view
- Successfully integrate Christian ideals into their lives
- Recognize their personal value and giftedness

### **E – Effective Users of Technology**

Students will have the computer and technology skills needed for success in the 21st Century. *They will...*

- Demonstrate competency in the use of the computer and technology
- Advance their achievement using the Internet and other technology resources
- Demonstrate high standards of ethics in the use of technology

### **S – Skilled Thinkers and Problem Solvers**

Students are complex thinkers with creative problem solving abilities. *They will...*

- Be able to compare, analyze and evaluate effectively
- Transfer learned skills to new situations
- Use logical and effective decision making skills

## Philosophy

The created world with all its wonders and complexities reveals the nature, creativity, and character of God. As we grow in knowledge of the wonders of creation, we grow in knowledge and wonder of the Creator.

## Research/Projects

In conjunction with the English curriculum, seventh and eighth grade students will write a research report. Research, writing, and documentation procedures will be taught in English. Students will receive two grades for the report, one for English and one for Science.

A science fair is held each spring. Seventh grade students will conduct an experiment using the scientific method to hypothesize, experiment, and report the results. Eighth grade students will report on and submit an original invention to the Inventor's Fair.

## Homework

Homework is a vital part of the learning process. Assignments are designed to extend or reinforce concepts learned in class. Students should expect regular reading and comprehension assignments.

## Electives Supporting Science

**Logic and Rhetoric** – Have you ever watched a commercial, heard someone debate, or read an argument and knew it didn't make sense? In this class, students will learn how to identify "logical fallacies." Don't confuse a silly argument with an intelligent debate; learn the difference while developing critical thinking skills.

## Outdoor Education

Seventh graders will spend four days on Palomar Mountain exploring God's creation. Special emphasis will be placed on the study of astronomy and intelligent design.

# Foothill Christian School

## Junior High Science Curriculum Overview



FOOTHILL  
CHRISTIAN SCHOOL

### **Decidedly Academic. Distinctively Christian.**

The mission of Foothill Christian School is to provide families with a Christ-centered, biblically-directed education which encourages the development of a personal relationship with God and which instills the vision and practice of excellence in academics, character and service to God and others.



# Investigation and Experimentation

Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept students should develop their own questions and perform investigations.

## Seventh grade students will:

- ✚ Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data
- ✚ Use a variety of print and electronic resources (including the World Wide Web) to collect information and evidence as part of a research project
- ✚ Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence
- ✚ Construct scale models, maps, and appropriately labeled diagrams to communicate scientific knowledge (e.g., motion of Earth's plates and cell structure)
- ✚ Communicate the steps and results from an investigation in written reports and oral presentations

## Eighth grade students will:

- ✚ Plan and conduct a scientific investigation to test a hypothesis
- ✚ Evaluate the accuracy and reproducibility of data
- ✚ Distinguish between variable and controlled parameters in a test.
- ✚ Recognize the slope of the linear graph as the constant in the relationship  $y = kx$  and apply this principle in interpreting graphs constructed from data
- ✚ Construct appropriate graphs from data and develop quantitative statements about the relationships between variables
- ✚ Apply simple mathematic relationships to determine a missing quantity in a mathematic expression, given the two remaining terms (e.g. speed = distance/time)
- ✚ Distinguish between linear and nonlinear relationships on a graph of data

## Grade 7

- ✚ Recognize that all living organisms are composed of cells, from just one to many trillions, whose details usually are visible only through a microscope and know cells function similarly in all living organisms and that the characteristics that distinguish plant cells from animal cells including chloroplasts and cell walls
- ✚ Recognize that a typical cell of any organism contains genetic instructions that specify its traits and may be modified by environmental influences
- ✚ Compare and contrast the theory of evolution with the biblical account of creation and appreciate the diversity of God's creation
- ✚ Recognize the earth's processes and the changes that have resulted from them
- ✚ Recognize that the anatomy and physiology of plants and animals illustrate the complementary nature of structure and function
- ✚ Physical principles of such things as light and machines, underlie biological structures and functions
- ✚ Acquire and use scientific vocabulary
- ✚ Write clear, coherent reasonable responses to questions and journal prompts in complete sentences using proper spelling and grammar.
- ✚ Synthesize analyzed data in a conclusion essay

This brochure is designed to give an overview of the curriculum taught at Foothill Christian School. The depth of each subject taught goes far beyond this brief description. For further insight, you may contact your child's teacher.

## Grade 8

- ✚ Recognize the velocity of an object is the rate of change of its position
- ✚ Know how to solve problems involving distance, time, and average speed.
- ✚ Know how to interpret graphs of position versus time and graphs of speed versus time for motion in a single direction.
- ✚ Recognize that unbalanced forces cause changes in velocity
- ✚ Recognize that each of the more than 100 elements of matter has distinct properties and a distinct atomic structure and that all forms of matter are composed of one or more of the elements
- ✚ Recognize that the structure and composition of the universe can be learned from studying stars and galaxies
- ✚ Recognize that chemical reactions are processes in which atoms are rearranged into different combinations of molecules
- ✚ Recognize that the principles of chemistry underlie the functioning of biological systems
- ✚ Recognize that the organization of the periodic table is based on the properties of the elements and reflects the structure of atoms
- ✚ Recognize that all objects experience a buoyant force when immersed in a fluid
- ✚ Acquire and use scientific vocabulary
- ✚ Write clear, coherent reasonable responses to questions and journal prompts in complete sentences using proper spelling and grammar.
- ✚ Synthesize analyzed data in a conclusion essay